

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An isolated antibody that binds specifically to a stalk of CD30 of a cell, or to an epitope destroyed upon cleavage of soluble CD30 ("sCD30") from intact CD30 (SEQ ID NO:1), which antibody has complementarity determining regions ("CDRs"), which CDRs have the sequence of the CDRs of an antibody selected from the group consisting of antibodies T105, T405 and T408, as shown in Figures 2a and b.
2. (Currently amended) An antibody of claim 1, wherein said antibody is selected from the group consisting of an Fab, a single chain variable region ("scFV"), and a disulfide stabilized recombinant variable region variable heavy chain and a variable light chain connected by a disulfide bond ("dsFv").
3. (Currently amended) An antibody of claim 1, which binds to a peptide selected from the group consisting of: residues 329 to 379 of CD30, residues 339 to 379 of CD30, residues 349 to 379 of CD30, residues 359 to 379 of CD30, and residues 369 to 379 of CD30 further wherein said antibody has a variable heavy chain and a variable light chain, which variable heavy chain and said variable light chain are selected from the group consisting of: a variable heavy chain of SEQ ID NO:14 and a variable light chain of SEQ ID NO:29 (antibody T105), a variable heavy chain of SEQ ID NO:13 and a variable light chain of SEQ ID NO:28 (antibody T405), and a variable heavy chain of SEQ ID NO:40 and a variable light chain of SEQ ID NO:41 (antibody T408), and, optionally, further wherein a first cysteine residue is substituted for an amino acid residue in a framework region of said variable heavy chain and a second cysteine residue is substituted for an amino acid residue in a framework region of said variable light chain.

4-6. Canceled.

⁴1. (Currently amended) A composition comprising an antibody of claim 1, conjugated or fused to a therapeutic moiety or detectable label.

⁵2. (Currently amended) A composition comprising an antibody of claim [[3]] 2, conjugated or fused to a therapeutic moiety or detectable label.

⁶3. (Currently amended) A composition comprising an antibody of claim [[4]] 3, conjugated or fused to a therapeutic moiety or detectable label.

10-11. Canceled.

⁴12. (Original) A composition of claim ⁴1, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

⁵13. (Original) A composition of claim ⁵2, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin

⁶14. (Original) A composition of claim ⁶3, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

15-16. Canceled.

⁴17. (Currently amended) A composition of claim [[15]] ⁴1, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin A, and botulinum toxins A through F.

⁵18. (Currently amended) A composition of claim [[12]] ⁵2, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin A, and botulinum toxins A through F.

¹² (Currently amended) A composition of claim ~~18~~, wherein said *Pseudomonas* exotoxin A is selected from the group consisting of PE35, PE38, PE38KDEL, PE40, PE4E, and PE38QQR ¹, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin A, and botulinum toxins A through F.

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~~13~~ 20. (Original) A composition of claim ⁴~~1~~, further comprising a pharmaceutically acceptable carrier.

21-26. Canceled.

¹⁸ (Withdrawn-currently amended) A nucleic acid encoding an antibody that binds specifically to a stalk of CD30 of a cell, or to an epitope destroyed upon cleavage of sCD30 from intact CD30 of claim 1.

¹⁸
~~19~~ 26. (Withdrawn-currently amended) A nucleic acid of claim ¹⁸~~27~~, wherein said antibody binds to an epitope of CD30 selected from Epitope IIa and VI further wherein said antibody has a variable heavy chain and a variable light chain, which variable heavy chain and said variable light chain are selected from the group consisting of: a variable heavy chain of SEQ ID NO:14 and a variable light chain of SEQ ID NO:29 (antibody T105), a variable heavy chain of SEQ ID NO:13 and a variable light chain of SEQ ID NO:28 (antibody T405), and a variable heavy chain of SEQ ID NO:40 and a variable light chain of SEQ ID NO:41 (antibody T408), and, optionally (1) wherein a first cysteine residue is substituted for an amino acid residue in a framework region of said variable heavy chain and a second cysteine residue is substituted for an amino acid residue in a framework region of said variable light chain and (2) said nucleic acid further encodes a polypeptide which is a therapeutic moiety.

¹⁸
~~20~~ 29. (Withdrawn) A nucleic acid of claim ¹⁸~~27~~, further wherein said nucleic acid encodes a polypeptide which is a therapeutic moiety.

~~20~~¹⁸ 21. (Withdrawn) An expression vector comprising a nucleic acid of claim ~~21~~¹⁸, operably linked to a promoter.

~~22~~¹⁹ 22. (Withdrawn) An expression vector comprising a nucleic acid of claim ~~22~~¹⁹, operably linked to a promoter.

~~23~~²⁰ 23. (Withdrawn) An expression vector comprising a nucleic acid of claim ~~23~~²⁰, operably linked to a promoter.

~~24~~²⁵ 24. (Withdrawn - currently amended) A method of inhibiting growth of a CD30+ cancer cell by contacting said cell with a chimeric molecule comprising an antibody that binds specifically to a stalk of CD30 of a cell, of claim 1 conjugated or fused to a therapeutic moiety, which therapeutic moiety inhibits growth of said cell.

~~25~~²⁴ (Withdrawn) A method of claim ~~25~~²⁴, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')₂.

~~26~~²⁴ 26. (Withdrawn - currently amended) A method of claim ~~26~~²⁴, wherein said antibody binds to an epitope selected from the group consisting of Epitope Ha and VI further wherein said antibody has a variable heavy chain and a variable light chain, which variable heavy chain and said variable light chain are selected from the group consisting of: a variable heavy chain of SEQ ID NO:14 and a variable light chain of SEQ ID NO:29 (antibody T105), a variable heavy chain of SEQ ID NO:13 and a variable light chain of SEQ ID NO:28 (antibody T405), and a variable heavy chain of SEQ ID NO:40 and a variable light chain of SEQ ID NO:41 (antibody T408), and, optionally, further wherein a first cysteine residue is substituted for an amino acid residue in a framework region of said variable heavy chain and a second cysteine residue is substituted for an amino acid residue in a framework region of said variable light chain.

~~27~~²⁴ ~~36~~. (Withdrawn) A method of claim ~~36~~²⁴, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

~~28~~²⁷ ~~37~~. (Withdrawn) A method of claim ~~37~~²⁷, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin A, and botulinum toxins A through F.

38-59. Canceled.

~~29~~²⁴ ~~60~~. (Withdrawn-currently amended) A method of claim ~~[[59]]~~²⁴ ~~25~~, wherein said antibody is a scFv or dsFv.

~~30~~²⁴ ~~61~~. (Withdrawn-currently amended) A method of claim ~~59~~²⁴, wherein said therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug and a cytotoxin ~~35~~²⁶, wherein said antibody is a scFv or dsFv.

62. Canceled.

~~31~~²⁶ (Withdrawn-currently amended) A method of claim ~~61~~²⁶, wherein the cytotoxin is selected from the group consisting of ricin A, abrin, ribotoxin, ribonuclease, saporin, calicheamycin, diphtheria toxin, a *Pseudomonas* exotoxin A, and botulinum toxins A through F ~~35~~²⁶, wherein the therapeutic moiety is selected from the group consisting of a cytotoxin, a drug, a radioisotope, or a liposome loaded with a drug or a cytotoxin.

~~32~~²⁶ ~~64~~. (Withdrawn-currently amended) A method for detecting the presence of a CD30+ cell in a biological sample, said method comprising:

(a) contacting cells of said biological sample with an anti-CD30 antibody of claim 1 selected from the group consisting of an antibody that binds specifically to a stalk of CD30 of a cell, or to an epitope destroyed upon cleavage of sCD30 from intact CD30 (SEQ ID NO:1), and an antibody having at least one complementarity determining region as shown in

Figure 2 of a variable heavy chain or variable light chain selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39, said antibody being fused or conjugated to a detectable label; and,

(b) detecting the presence or absence of said label,

wherein detecting the presence of said label indicates the presence of a CD30+ cell in said sample.

~~33~~³² 33. (Original) A method of claim ~~34~~³², wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')₂.

66-80. Canceled.

~~14~~¹⁴ 14. (Currently amended) A kit for detecting the presence of a CD30+ cancer cell in a biological sample, said kit comprising:

(a) a container, and

(b) an anti-CD30 antibody selected from the group consisting of an antibody that binds specifically to a stalk of CD30 of a cell, or to an epitope destroyed upon cleavage of sCD30 from intact CD30, and an antibody that has at least one complementarity determining region having a sequence shown in Figures 2 and 6 of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:38 and SEQ ID NO:39, which anti-CD30 antibody is of claim 1, fused or conjugated to a detectable label.

~~15~~¹⁴ 15. (Original) A kit of claim ~~14~~¹⁴, wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')₂.

~~34~~³² 34. (New) A method of claim ~~34~~³², further wherein said antibody has a variable heavy chain and a variable light chain, which variable heavy chain and said variable light chain are selected from the group consisting of: a variable heavy chain of SEQ ID NO:14 and a

variable light chain of SEQ ID NO:29 (antibody T105), a variable heavy chain of SEQ ID NO:13 and a variable light chain of SEQ ID NO:28 (antibody T405), and a variable heavy chain of SEQ ID NO:40 and a variable light chain of SEQ ID NO:41 (antibody T408), and, optionally, further wherein a first cysteine residue is substituted for an amino acid residue in a framework region of said variable heavy chain and a second cysteine residue is substituted for an amino acid residue in a framework region of said variable light chain.

~~35~~³⁴ 34. (New) A method of claim ~~33~~³⁴, further wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')₂.

~~36~~³² 35. (New) A method of claim ~~34~~³², wherein said detection of said presence of said antibody is by an immunoassay.

~~37~~³⁴ 36. (New) A method of claim ~~35~~³⁴, wherein said detection of said presence of said antibody is by an immunoassay.

~~38~~¹⁴ 37. (New) A kit of claim ~~37~~¹⁴, further wherein said anti-CD30 antibody antibody has a variable heavy chain and a variable light chain, which variable heavy chain and said variable light chain are selected from the group consisting of: a variable heavy chain of SEQ ID NO:14 and a variable light chain of SEQ ID NO:29 (antibody T105), a variable heavy chain of SEQ ID NO:13 and a variable light chain of SEQ ID NO:28 (antibody T405), and a variable heavy chain of SEQ ID NO:40 and a variable light chain of SEQ ID NO:41 (antibody T408), and, optionally, further wherein a first cysteine residue is substituted for an amino acid residue in a framework region of said variable heavy chain and a second cysteine residue is substituted for an amino acid residue in a framework region of said variable light chain.

~~17~~¹⁶ 38. (New) A kit of claim ~~37~~¹⁶, further wherein said antibody is selected from the group consisting of an scFv, a dsFv, a Fab, or a F(ab')₂.